工作原理 Working principle

蓄能器内腔由皮囊分为两个部分 ：囊内装氮气，囊外充液压油。当液压泵将液压油压入蓄能器时，皮囊就受压变形，气体体积随压力增加而减少。液压油被逐渐储存。若液压系统工作需要增加液压油，则蓄能器将液压油排出，使系统的能量得到补偿

Inner space of accumulator is divided into two parts by bladder: nitrogen is filled in bladder and hyraulic oil is filled the bladder. When hydraulic oil is pressed into accumulator by hydraulic valve, bladder deform by the pressure,volume of gas decreases with the increasing of pressure. Hydraulic oil is stored gradually.If hydraulic system need hydraulic oil to work,accumulator discharge the hydraulic oil and compensate the system energy.

图1　Fig.1 蓄能器工作示意图

蓄能器的典型应用 Typical applications of the accumulator

如果在液压回路 中短时间内流量变化较大，使用蓄能器就能选用较小的泵和电机，从而降低了设备费用和操作费用。图2所示的运行周期需要一个具有Q2流量的泵。如果应用蓄能器，在时间周期(t2-t1)和(t4-t3)内蓄油，因为此时需要的油流量很小，或者甚至不需要用油。当所要求的流量高于泵送量Q1时，在t1和t3-t2周期内可使用蓄能器供油。选择泵送量Q1须满足V1+V2≤V3+V4 。

In the case of hydraulic circuits where a large flow rate is required for a short period, alternating with a low or no flow condition, the use of an accumulator allows smaller pumps and motors to be used, thus reducing both installation and operating costs. The operation cycle shown in fig.2 would require a pump having a capacity Q2 . If an oil-pneumatic accumulator is used, it is possible to store oil during the time periods(t2-t1)and(t4-t3) when requirement is very low or zero, and to re-utilize. During t1 and(t3-t2), when the required flow rate is higher than the pump capacity Q1.This pump must be selected to have the volumes V1+V2≤V3+V4 .

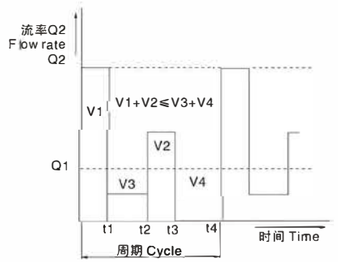
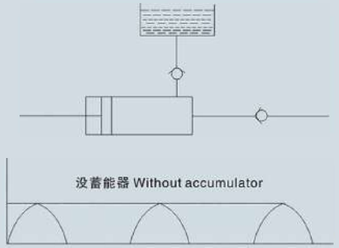


图2 Fig.2

国标囊式蓄能器
China National Standard Bladder Accumulator
TAIZHOU ETERNAL HYDRAULIC

1、柱塞泵和隔膜泵在运行时会在液压回路里不可避免地产生脉动，这既不利于运动又有害于部件的使用寿命。在靠近泵的出口侧装上囊式蓄能器，可吸收脉动，使脉动降到满意的程度(图3)。典型的用途如 ：用于定量泵及活塞数较少的柱塞泵等。

Both piston and diaphragm pumps create pulsation or pressure peaks during operation, this being undesirable and bdetrimental to both the smooth operation and operational life of components. The fitting of an accumulator adjacent to down stream of the pump will dampen the pulsation to an acceptable level(fig.3)Typical applications are dosing pumps,pumps with a small number of pistons etc .



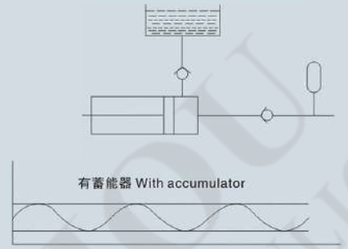


图3 Fig.3

2、在动力突然损失的情况下，例如管道或接头故障、泵破损等，蓄能器能够提供足够的能量来完成运行循环或使传动机构、阀门等重新恢复到安全的位置，从而防止损坏设备或产品。在一些必须获得紧急动力源的情况下，如为关闭安全门、电器开关、安全阀、紧急制动器等所需要的液动源。

另一个典型用途是将燃油紧急提供给电厂的锅炉。图4B处所示的引起损失的故障，可通过手动操纵电子阀A而消除，这时就使用了蓄能器储备的能量。

In the case of a sudden power loss, e. g. pipe or joint failure, pump break-down etc. the accumulator can provide sufficient energy to complete an operational cycle or to allow actuators, valves etc.to reset to a "safe" position, and so prevent damage to equipment or product . The availability of such an emergency power source is essential in cases where a hydraulic power supply is required for closing a safety door,electrical switch,safety valve,emergency brakes etc .

A typical application is the emergency supply of fuel oil to power plant burners.Fig.4 illustrates that a failure at "B"causing a loss of energy can be offset by manually overriding the electro valve "A" thus utilizing the potential energy of the accumulator.

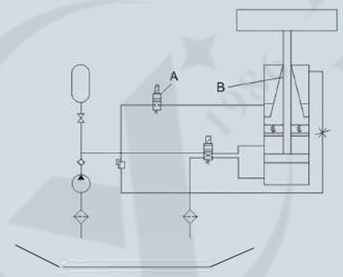


图4 Fig.4

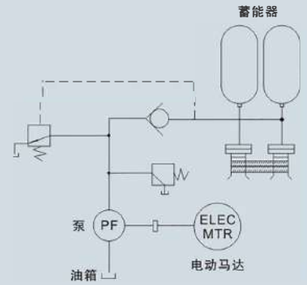


图5 Fig.5

3、在闭式液路中，由于热膨胀，温度的上升会导致压力上升。

在线安装的蓄能器可补偿油的容积变化，从而保护阀门、垫片、压力表等不出故障。炼油厂和远距离油管是其常的用途(图5)

In a closed hydraulic circuit, thermal expansion can cause an increase in pressure due to a rise in temperature .

An accumulator installed in the line will protect the valves, gaskets,pressure gauges etc. Common applications are found in refineries and pipelines(Fig.5)

压力波动。典型用途为夹紧系统(如图6)、负载平台、筑路压力机润滑系统等。
As a constant static pressure is required for a long period, an accumulator is indispensable as it will compensate for pressure loss due to leakage through joints, seals etc. as well as balancing pressure peaks which may occur during the operating cycle. Typical applications are found in closing system(Fig.6), loading platforms, curing presses, machine tools, lubricating systems, etc

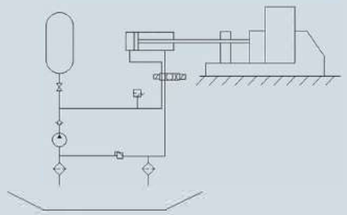


图6 Fig.6

5、阀的快速关闭会产生冲击波(水锤现象)，导致管子、接头、阀等部件的损坏。使用蓄能器能大大地减少中击。典型用途为水管(图7)、燃油和油的远距离管路、洗涤设备等。

Rapid valve closure can produce shock waves(water hammer)resulting in over pressurization of pipes, joints, valves etc. The use of a suitable accumulator can neutralize or significantly reduce the shock, Typical applications are water(fig.7), fuel and oil distribution circuits, washing equipment etc.

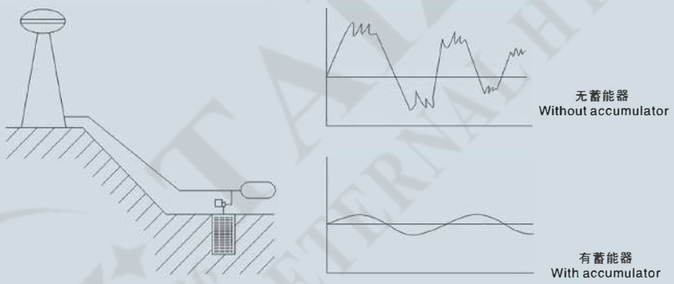


图7 Fig.7

6、液压设备中的机械振动可被蓄能器吸收，用于叉式提升机的驱动和悬挂系统、移动吊车、农用和市政设备、石块破碎机等。(图8所示)

Mechanical shocks in hydraulically driven equipment can be absorbed by accumulators. Possible applications are in drive and suspension systems for fork-lifts, mobile cranes, agricultural and civil engineering machinery, rock crusher etc.(Fig.8)

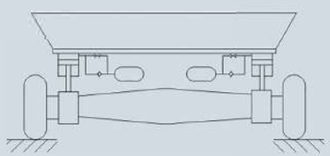


图8 Fig.8

国标囊式蓄能器
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在一个系统中，当作用在回路一侧的液体压力增加必须转换到回路另一侧液体中，而又不使两种液体混合，胶囊蓄能器可有效地解决这一问题(图9)。
蓄能器的胶囊犹如一个挠性屏障作用于液体和气液之间，提供瞬间响应而不减小系统的压力。
In a system where fluid pressure developed on one side of the circuit must be transferred, to another fluid without any possibility of the two fluids intermixing,the bladder accumulator provides the satisfactory solution(Fig.9) .
The accumulator bladder acts as a flexible barrier between the two fluids or between a gas and a fluids providing instantaneous response without reducing the system pressure .

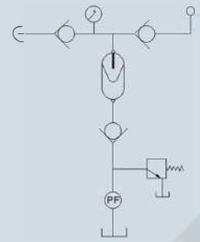


图9 Fig.9

蓄能器的选择 Selesction

选择蓄能器时必须明确以下技术参数
The following parameters are involved in the selection of an accumulator, the most important are .

1、工作压力 Working pressure

最小和最大工作压力(P1、P2)，其中最大允许工作压力不应大于被选用的蓄能器所规定的最大工作压力。
The minimum and maximum working pressure(P1、P2), and the value of the maximum allowable working pressure must be lower or equal to the maximum authorized working pressure of the accumulator to be chosen for safety reasons .

2、工作容积 Working volume

可储存或利用的液体容积(△V)。
Volume(△V) of liquid to be stored or utilized is required in addition to the maximum and minimum working pressure for orrect sizing of the accumulator.

3、工作介质 Working mediums

一般为氮气和液压油或乳化液，特殊介质请咨询。
In general, the working mediums are nitrogen and hydraulic oil or emulsion, for special medium, please consults us first .

4、工作温度 Working temperature

工作温度决定着胶囊材料和壳体材料的选择，而且对初始负载压力、蓄能器容积确定也有影响。
The materials selection of bladder and shell will be determined on the operating temperature, also influence on the pre-loading pressure, and consequently on the accumulator volume .

5、最大流量 Maximum flow rate

对于相同容积(△V)，流量与蓄能器规格和反应速度有关。
For the same (△V) the size or accumulator connection can be influenced by the immediate flow rate necessary .

6、使用场所 Location

确定蓄能器的最终使用场所非常重要，这样可以使设计能够满足该场所设计参数和试验参数的要求。

It is important to know the eventual designation of the accumulator in order that the design can meet local design and test parameter.

7、容积计算 Volume calculation

应用场合	容积计算公式 formula	说明 Note
辅助动力源 Fiuid power storage	$V_0=\frac{V_x(P_1/P_0)^{1/n}}{1-(P_1/P_2)^{1/n}}$	V_0-所需蓄能器的容积(m^3); Volume required P_0-充气压力Pa,且:0.9P1>P0>0.25P2 V_x-蓄能器的工作容积(m^3)efficient volume P_1-系统最低工作压力(Pa)min. Operating pressure P_2-系统最高工作压力(Pa)max. Operating pressure n-指数,等温时取n=1,绝热时取n=1.4 n-coefficient n=1,isothermal condition; n=1.4 adiabatic condition
吸收泵的脉动 Pulsation damper	$V_0=\frac{AkL(P_1/P_0)^{1/n}\times10^3}{1-(P_1/P_2)^{1/n}}$	A-缸的有效面积(m^2) efficient volume L-柱塞行程(m) length k-与泵的类型有关的系数 Coefficient relation with pump 泵的类型type of pump 系数coefficient 单缸单作用1 piston,single acting 0.60 单缸双作用1 piston,double acting 0.25 双缸单作用2piston,single acting 0.25 双缸双作用2piston,double acting 0.15 三缸单作用3piston,single acting 0.13 三缸双作用3piston,double acting 0.05 -充气压力，按系统工作压力的60%充气; -Pre-charge pressure, equal to 60%of operating pressure
吸收冲击 Absorb emergency energy	$V_0=\frac{m}{2}V^2(\frac{0.4}{P_0})[\frac{10^3}{(P_2/P_0)^{0.285}-1}]$	m-管路中液体的总质量(Kg); General quality of hydraulic oil circuit v-管中流速(m/s)FIuid flow rate -充气压力(Pa),按系统工作压力的90%充气; -Pre-charge pressure,equal to 90%of operating pressure

注:

1. 充气压力按应用场合选用。

   Pre-charging pressure shall be determined according to application location .

2. 蓄能器工作循环在3min以上时，按等温条件计算,其余均按绝热条件计算。

   n=1,in case compression or expansion of nitrogen takes place so slow(over 3 minutes)that a complete interchange of heat is allowed between gas and environment, that is at constant temperature, the condition is isothermal n=1.4, when operation is so quick that no inter change of heat can take place,the condition is adiabatic .

国标囊式蓄能器
China National Standard Bladder Accumulator
TAIZHOU ETERNAL HYDRAULIC

型号说明 /Model Designations

NXQ – □ – □ / □ – □ – □

❶ ❷ ❸ ❹ ❺ ❻

❶ 液压囊式蓄能器/Hydraulic Bladder Accumulator

❷ 结构型式/ Structure : A: 小口 Small Opening AB: 大口 Big Opening

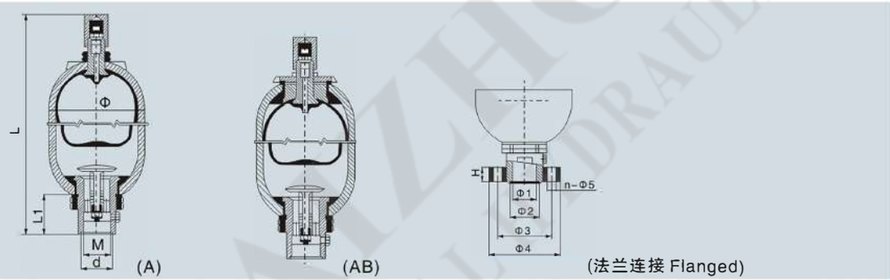
❸ 公称容积/Nominal Capacity : L

❹ 公称压力/Nominal Perssure : bar

❺ 连接型式/Connection type : L--螺纹连接 Thread F--法兰连接 Flanged

❻ 工作介质/Medium: Y--液压油/hydraulic oil R--乳化液/emulsion

外形尺寸 /Overall Dimension



型号 Model	公称压力 Nominal Pressure (MPa)	公称容积 Nominal Volume (L)	M	d	Φ1	Φ2	Φ3	Φ4	n-Φ5	L1	H	连接方式 Connection Type 螺纹 Thread L	连接方式 Connection Type 法兰 Flanged L	Φ	重量 (kg) Weight
NXQ-*-0.4/*-L(F)-*	10	0.4	M27×2	/	22	30	85	115	4-Φ17	52	22	260	270	89	3
NXQ-*-0.63/*-L(F)-*		0.63										315	325		3.5
NXQ-*-1/*-L(F)-*		1										430	440		4.5
NXQ-*-1/*-L(F)-*		1										330	340	114	5
NXQ-*-1.6/*-L(F)-*		1.6	M42×2	50	42	50	97	130	6-Φ17	66	28	365	380	152	11
NXQ-*-2.5/*-L(F)-*		2.5										430	445		14
NXQ-*-4/*-L(F)-*		4										540	555		16
NXQ-*-6.3/*-L(F)-*		6.3										710	725		22
NXQ-*-10/*-L(F)-*		10	M60×2	70	55	65	125	160	6-Φ21	90	32	650	665	219	38
NXQ-*16/*-L(F)-*		16										860	875		51
NXQ-*-20/*-L(F)-*		20										985	1000		58
NXQ-*-25/*-L(F)-*		25										1160	1175		68
NXQ-*-32/*-L(F)-*		32										1400	1415		82
NXQ-*-40/*-L(F)-*		40										1680	1695		98
NXQ-*-20/*-L(F)-*	20	20	M72×2	80	70	80	150	200	6-Φ26	106	40	680	695	299	80
NXQ-*-25/*-L(F)-*		25										770	785		90
NXQ-*-40/*-L(F)-*		40										1050	1065		118
NXQ-*-50/*-L(F)-*		50										1230	1245		138
NXQ-*-63/*-L(F)-*		63										1470	1485		171
NXQ-*-80/*-L(F)-*		80										1810	1825		213
NXQ-*-100/*-L(F)-*		100										2190	2205		253
NXQ-*-150/*-L(F)-*		150										3125	3140		335
NXQ-*-63/*-L(F)-*	31.5	63	M85×2	95	83	95	170	230	6-Φ26	110	40	1170	1185	351	170
NXQ-*-80/*-L(F)-*		80										1395	1410		206
NXQ-*-100/*-L(F)-*		100										1660	1675		250
NXQ-*-125/*-L(F)-*		125										1990	2005		304
NXQ-*-150/*-L(F)-*		150										2310	2325		356
NXQ-*-160/*-L(F)-*		160										2450	2465		379
NXQ-*-180/*-L(F)-*		180										2700	2715		420
NXQ-*-200/*-L(F)-*		200										2980	2995		466

订货说明 Ordering Note

1. 订货时须写明型号代号全称，如:工作压力为31.5MPa，公称容积为40L，壳体结构为小口，介质为液压油，连接方式为螺纹连接的Φ219囊式蓄能器：NXQ-A-40/31.5-L-Y(Φ219).

1. The model and the codes must be entitly indicated when ordering. for example, accumulator NXQ-A-40/31.5-L-Y means: working pressure:31.5Mpa, nominal volume: 40L,cylinder structure: small opening, bottom repair the medium: hydraulic oil,connection way: threaded, diameter: Φ219.

型号 Model	NXQ-A(AB)-※/10	NXQ-A(AB)-※/20	NXQ-A(AB)-※/31.5
公称压力 Nominal Pressure Mpa	10	20	31.5
耐压试验压力 Testing Pressure Mpa	13	26	41
允许充气压力范围 Allowance inflating pressure	小于液压系统最低工作压力的90% Less than the Min. operating pressure of the hydraulic system 90%		
	大于液压系统最高工作压力的25% More than the Max. operating pressure of the hydraulic system 25%		
最大排放流量 Max.discharging flow rate	螺纹连接 Threaded connection	0.4-1L	1L/S
		1.6-6.3L	3.2L/S
		10-40L	6L/S
		40-100L	10L/S
		150L	15L/S
	法兰连接 Flanged connection	1.6-6.3L	6L/S
		10-40L	10L/S
		40-100L	15L/S
		150L-200L	25L/S
固定方式 Fixation	含1升以下的直接安装在管路上,含1升以上用紧固环及支承座 Containing 1 liter direct installation of the pipeline, including more than1 liter fastening ring and bearing in		
安装方式 Installation	垂直安装Vertical installation		
使用温度 Working temperature℃	-40℃+90℃		
使用介质 Working medium	液压油、乳化液 Hydraulic Oil、Emulsion		
	水一乙二醇 Water glycol		特殊订货/special order
	磷酸脂 Phosphate		

注 Note:

(1) 不得用焊接、铆接或机械加工等方法来固定蓄能器；
(2) 蓄能器严禁充氧气或空气。必须充氮气或其它惰性气体；
(3) 作能量储存时，充气压力应低于液压系统最低工作压力的90%（一般为60-80%）；
(4) 蓄能器安装后，应检查接口处是否漏气，漏油；
(5) 蓄能器设置后，应按规定期进行气压检查。

(1) Welding, reveting and mechanical machining is not applied to fix theaccumulator.
(2) Oxygen or air is forbidden to filling the accumulator, only use nitrogen or other inert gas.
(3) When the accumulator is used as saving the energy, the filling pressure should be lower than 90%of the lowest working pressure of the hydraulic system (generally60%-80%)
(4) Check the connecting port for leaks when installing the accumulator.
(5) Check the pressure as required timely after the accumulator is settled down .

2. 订货时，遇到相同容积，不同直径系列的蓄能器规格，如用户选择大直径系列的蓄能器，请在产品型号的后面注上直径系列的规格。
例如：Φ219系列和Φ299系列都有40L规格，用户选用Φ299系列的40L。压力等级为31.5MPa大口结构，螺纹连接，介质为液压油的蓄能器；NXQ-AB-40/31.5-L-Y(Φ299)。如选择小直径系列的蓄能器，可省略。

2. When the user choose the big diameter series accumulator of the same capacity, please note the diameter on the back of the model and code. For example,there are two kind of pipe for 40L accumulator,one is Φ219 and the other is Φ299,if the user needΦ299 diameter, working pressure:31.5Mpa, cylinder structure: big opening/top repair, the medium: hydraulic oil, connection way: thread. this kind of the accumulator should be expressed as following: NXQ-AB-40/31.5-L-Y(Φ299). If the user choose a small diameter series, the diameter is not required to note.

3. 若对蓄能器有特殊要求时，请同本企业商洽。
If you have special requirements on the accumulator, please negotiate with the technical person of our company.

安装 Installation

1. 蓄能器原则上应该使气阀朝上垂直安装，为便于维护和检查，气阀处应留有一定空间。
2. 蓄能器的固定：蓄能器必须牢固地固定在托架或壁面上。
3. 用于缓冲和吸收脉动时，应尽可能装在靠近振动源处。
4. 蓄能器与液压泵之间应装设单向阀，当泵电机停止运转时防止蓄能器中所储存的压力油倒流。
5. 蓄能器与管路系统间设置操作简便的截止阀，此阀供充气，调节放油速度或长时间停机时使用。
6. 不得用焊接方法来固定蓄能器。

1. Accumulator shall be installed vertically with the gas valve upright. Inspection space shall be retained near gas valve .
2. Accumulator shall be fixed tightly on the supporter or wall .
3. When used for buffering and absorbing the fluctuation, accumulator shall be placed near the fluctuation source.
4. Check valve shall be placed between accumulator and hydraulic pump to prevent return flow of oil for the accumulator when the electric machine of pump stops working.
5. Stop valve shall be placed between accumulator and pipe system to be used in gas charging, draining speed adjusting or long term stopping.
6. Welding shall not be applied in fixing the accumulator.

国标囊式蓄能器
China National Standard Bladder Accumulator
TAIZHOU ETERNAL HYDRAULIC

氮气的充装 Charging of Nitrogen

1. 蓄能器在充装氮气前必须对蓄能器进行检查。 2. 在充装氮气时应缓慢进行，以防冲破胶囊。
3. 蓄能器严禁使用氧气，压缩空气或其它可燃气体。
4. 氮气的充装用充气工具进行。充气工具为蓄能器不可缺少的部件之一。用于蓄能器充气，排气，测定和修正充气压力等。
5. 充气压力的确定：
充气压力可参考下列数值：
(1)冲击缓冲：以蓄能器设置点的常用压力或稍高一点的压力作为充气压力；
(2)脉动阻尼：以脉动的平均压力的60％作为充气压力；
(3)能量储存：充气压力应在低于系统最低工作压力的90％(一般为60％-80％)和高于最高工作压力的25％范围内确定；
(4)热膨胀补偿：以液压系统封闭回路中的最低压力或稍低一点的压力作为充气压力。

1. Accumulator shall be inspected before nitrogen is charged. 2. Nitrogen shall be charged slowly to ensure the bladder be not broken by quickly charging .
3. Oxygen, compact air or other flammable gas shall not be used .
4 .Gas charging device shall be used in charging the Nitrogen. Gas charging device is inseparable part of accumulator to be used in charging,draining measuring and adjusting the charging pressure Gas Charging Device.
5. Determing of charging pressure:
(1) Buffering impact: Charging pressure shall be the normal pressure of installation site or a little above.
(2) Absorbing fluctuation: Charging pressure shall be 60%of average pressure of fluctuation.
(3) Storage of energy: Charging pressure shall be lower than 90%of minimum working pressure(generally60%-80%)and higher than25%of maximum working Pressure.
(4) Compensation for hot swelling: Charging pressure shall be the minimum pressure of close circuit of hydraulic system or a little lower

维修和检查 Inspection and repair

1. 检查漏气：
蓄能器设置后，开始每周检查胶囊气压一次；一个月后，每月一次，半年后，半年检查一次：一年后，每年检查一次。定期检查可以保持最佳使用条件，并及早发现渗漏及时修复使用。

检查方法：
在蓄能器的进油口和油箱连接的油路上设置一个截止阀，并在截止阀前装上一个压力表。慢慢打开截止阀，使压力油流回油箱，同时注意压力表，压力表指针先是慢慢下降。达到某压力值后急速降到零，指针移动的速度发生变化的数值，就是充气压力。此外，还可以利用充气工具检查压力，但每检查一次都会放掉一点气体。

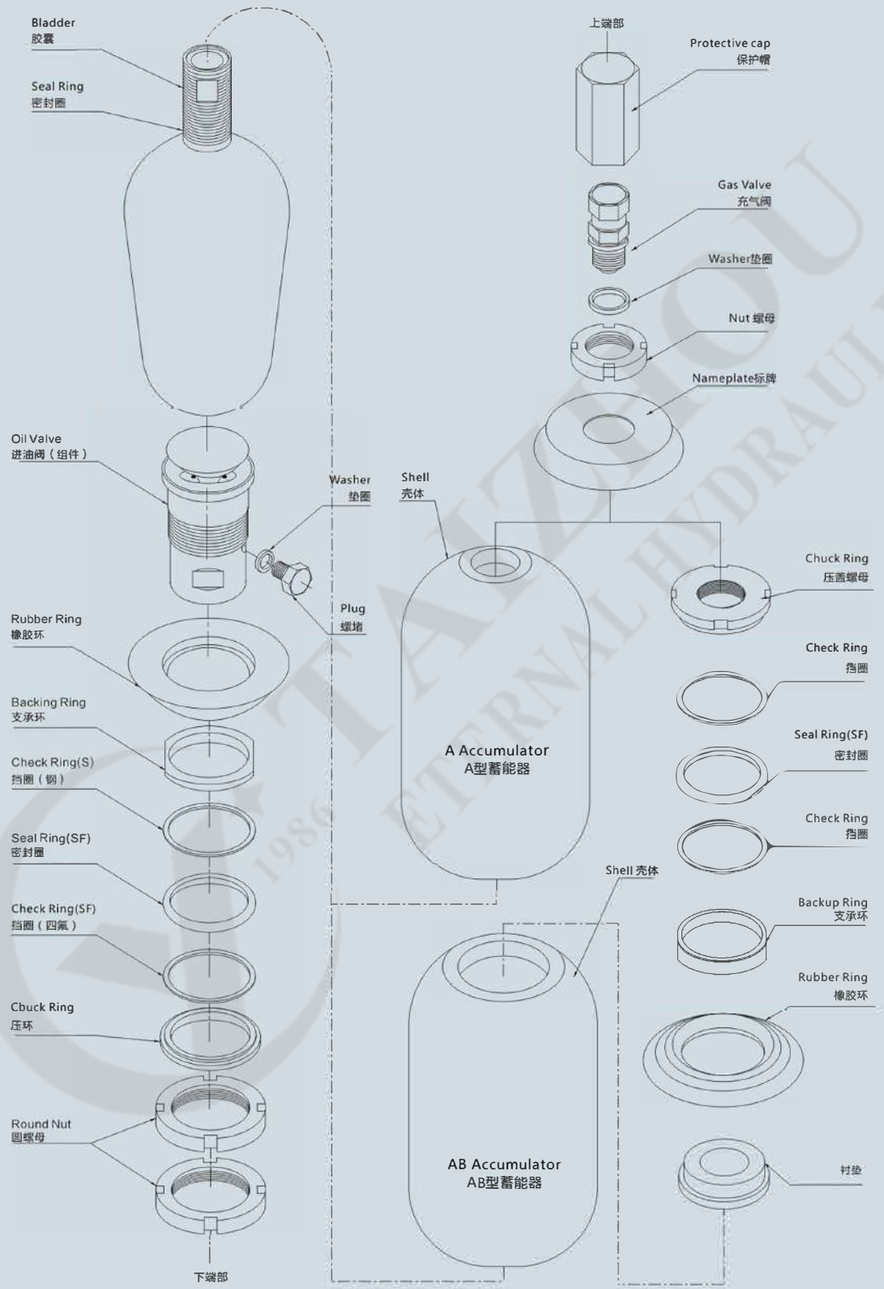
2. 装置长期停止使用时，应关闭油口与压力油管之间的截止阀，保持蓄能器的油压在充气压力以上。
3. 若蓄能器在装置中不起作用，请检查是否由于气阀漏气引起，以便给予补充氮气。若皮囊内没有氮气，气阀处冒油，请拆卸检查皮囊是否损坏。
4. 卸下蓄能器前必须卸去压力油，使用充气工具放掉皮囊中的氮气，然后才能拆下各零部件。
5. 因运输或试压过程中出现蓄能器紧固螺母松动，造成蓄能器向外漏油时，请检查密封圈是否被挤出密封槽外。安装平整后，旋紧螺母。最好在系统压力最高值时旋紧螺母。若仍然漏油，请卸换有关零件。

1. Inspection of leakage:
After installation, check the gas pressure in bladder every week.A month later,check every month, half a year later,check every half year.
Inspection method:
Place a check-valve in the oil pipe connects the accumulator oil-inlet and oil box, and installs a pressure gage before the check-valve . Open the check-valve slowly to let pressure oil return to oil box and watch the pressure gage simultaneously. The pointer of gage at first turn down slowly, turns dwon rapidly to zero at a certain point. The changed value of moving speed of pointer is the gas charging pressure. Besides, gas charging device could be used to inspect pressure, but gas will be discharged abit during each inspection.
2. When accumulator is not used for a long period, the check-valve shall be closed to ensure that the oil pressure is above that charging pressure.
3. If the accumulator does not take effect,check whether there is leakage. If there is no nitrogen in the bladder and oil is out of gas-valve,please check the bladder.
4. Drain the oil before demount accumulator.First let out the nitrogen with the charging device, then the parts can be demounted.
5. If there is leakage because of loosening of nuts in the process of transportation and testing, please check that seal ring is in the slot. Place the seal ring in the right place and revolve the nut. If leakage still exists, please change the parts.

附则 Appendix

1.系统调试前，应排尽管道内空气。Before debugging,air in the pipe shall be expelled.
2.10L以上蓄能器，必须在进油口设置安全阀。Place a safety-valve in the oil-inlet when accumulator is larger than 10 L.
3.蓄能器作用前必须检查囊内氮气压力是否符合充气压力确定值。Check the nitrogen pressure before the accumulator take effect.
4.蓄能器严禁充装氧气及可燃气体，以避免引起爆炸。Oxygen and flammable gas are prohibited in avoidance of explosion.

囊式蓄能器装配示意图 Bladder accumulator assembly schematic drawing



国标囊式蓄能器
China National Standard Bladder Accumulator
TAIZHOU ETERNAL HYDRAULIC

简介 Brief Introduction

本系列胶囊在NXQ系列使用中，起着储存能量、稳定压力、补偿容量、吸收脉冲等多种作用。本系列胶囊符合HG2331标准。本系列胶囊具有耐油、耐酸碱、耐屈挠、变形小、强度高等特点。

During the using of the NXQ series accumuIator, this series of the bladder plays the role of storing energy, stablity the pressure, compensating the capacity and absorbing the puIse. The series of the bladder is consistent with Hg2331 standards, and it has the characteristics of resistanting oiI, acid and flexing, smaII deformation, high strength etc .

型号说明 /Model Designations

※LX ❶ ※ ❷ – ※ ❸

❶ 胶囊容量/Bladder volume：0.4-100L

❷ 胶囊长度/BIadder length：74-1880mm

❸ 结构形式/Structure type：A型/A Type

技术参数 /Technical data

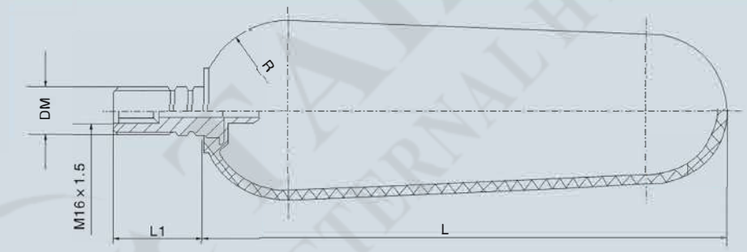
公称压力/Nominal pressure：10、20、31.5MPa

适用介质/Medium

胶囊内：氮气；胶囊外：液压油和乳化液

In the bladder: nitrogen; outside the bladder: hydraulic oil or emulsion

外形尺寸 /Overall Dimension



1).NXQ系列蓄能器胶囊(Φ89-Φ219)/Accumulator bladder

蓄能器容积(L) Accumulator volume	基本尺寸 Size(mm) DM	L	L1	R	蓄能器容积(L) Accumulator volume	基本尺寸 Size(mm) DM	L	L1	R
0.4	M24×1.5	74	44	38.5	6.3	M30×1.5	486	49	66
0.63		144			10		365		
1		250			16		569		
1.6	M30×1.5	144	49	66	25		877	60	95
2.5		206			40		1405		
4		312							

2).NXQ系列蓄能器胶囊(Φ299)/Accumulator bladder

蓄能器容积(L) Accumulator volume	基本尺寸 Size(mm) DM	L	L1	R
20	M30×1.5	380	60	131
25		470		
40		740		
63		1180		
80		1440		
100		1880		

订货说明 Ordering Note

1.订货时须写明型号代号全称，如：工作压力为31.5MPa、容积为40L、长度为1405mm的(NXQ系列)蓄能器胶囊：40LX1405-A

2.若其他规格的胶囊尺寸及对胶囊有特殊要求时，请同本公司商洽。

1.The model and the code should be indicated when ordering. for example, working pressure:31.5Mpa, the nominal volume: 40L,length: 1405mm, (NXQ series), this kind of the bladder should be expressed as following: 40L×1405-A .

2.If other size or special requirement is need on the bladder, please contact our company.

囊胶囊式蓄能器站
Bladder accumulator station

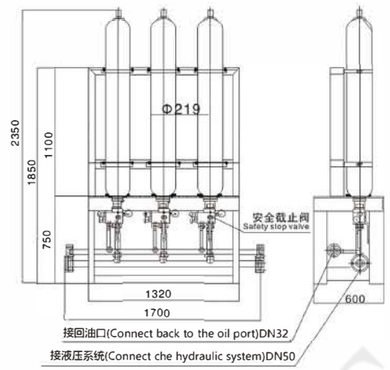
概述/Overview

精仪液液压公司可提供一系列完整的胶囊式蓄能器站，胶囊式蓄能器站包括了固定支架、胶囊式蓄能器、控制阀组、球阀、进出油管、回油管等。

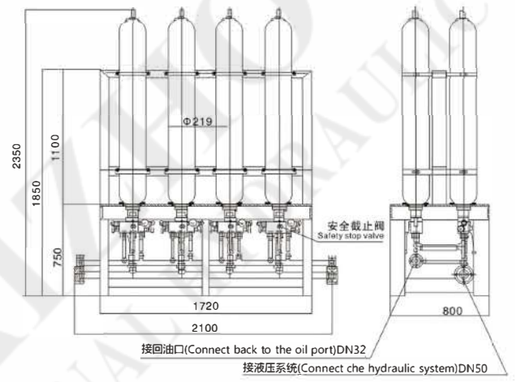
JINGYI hydraulic corpo ration offers a series of full Bladder accumulator station which include fixed bolster,bag type accumulator,control valve group,ball valve, pipeline,oil return pipe,etc.

外形尺寸 /Overall Dimension

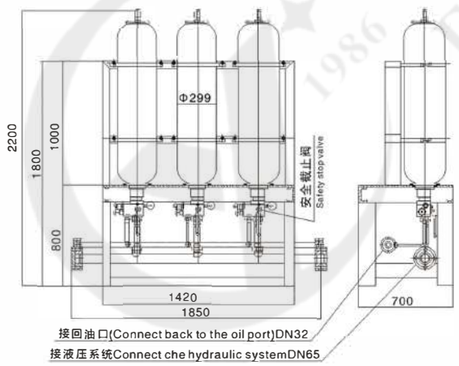
胶囊式蓄能器站--示例1
3个胶囊式蓄能器，每个容量为40L，带有安全截止阀。
Bladder Accumulator Station-example1
Specifications:3 bladder accumulators,each 40L,with a safety stop valve



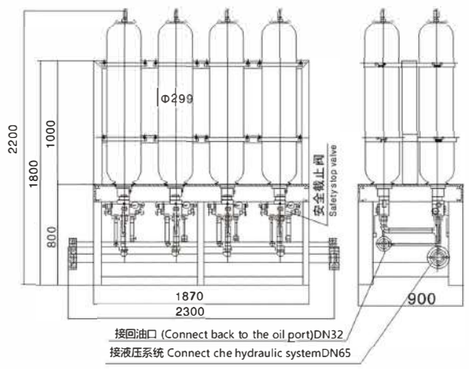
胶囊式蓄能器站--示例2
8个胶囊式蓄能器，每个容量为40L,带有安全截止。
Bladder Accumulator Station-example 2
Specifications:8 bladder accumaulators,each 40L,with a safety stop valve



胶囊式蓄能器站--示例3
3个胶囊式蓄能器，每个容量为63L，带有安全截止阀。
Bladder Accumulator Station-example 3
Specifications:3 bladder accumaulators,each 63L,with a safety stop valve



胶囊式蓄能器站--示例4
8个胶囊式蓄能器，每个容量为63L，带有安全截止阀。
Bladder Accumulator Station-example 4
Specifications:8 bladder accumaulators,each 63L,with a safety stop valve



订货说明 /Ordering Note

1.订货时须写明胶囊式蓄能器的容积，所配置的部件名称及要求。
2.若对胶囊式蓄能器站有特殊要求时，请向本企业商洽。
3.本企业保留设计更改权，对修改不另行通知。

1.Volume of each bladder accumulator,collocated parts and requirements are needed when ordering.
2.Contact us if special requirement is needed.
3.Design change rights is retained by our company and revise is effective without further notice.

蓄能器卡筵
Accumulator Hoop

概述/Overview

专用于固定蓄能器而设计的专业装置。具有结构紧凑，连接灵活，外形美观等特点。
The special device designed to fix accumulator with the advantage of compact structure,flexible connection,nice appearance.

型号说明 /Model Designations

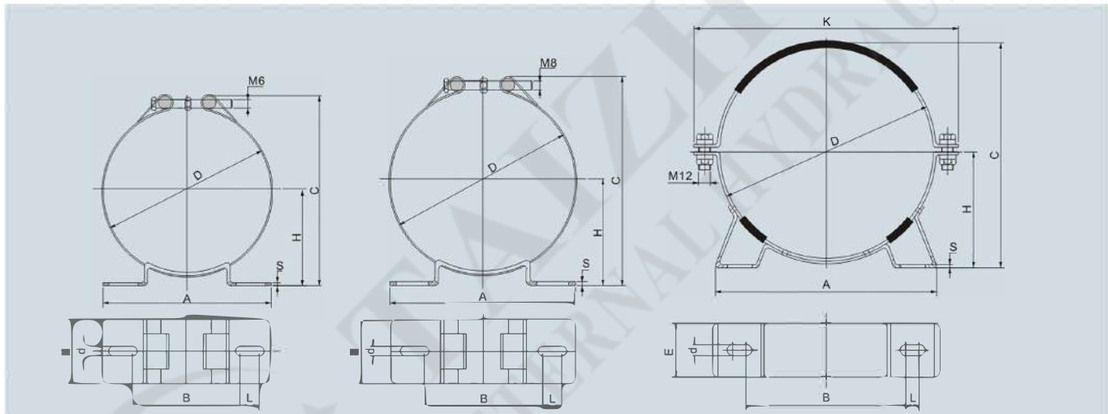
NX-KG / **Φ※**

❶ ❷

❶ 名称代号/Code Name：蓄能器卡箍 Hoop for accumulator

❷ 蓄能器直径 /Diameter：Φ89~Φ351

外形尺寸 /Overall Dimension



型号/Model	A	B	C	D	E	H	K	S	d	L	配用蓄能器型号
NX-KG/Φ89	120	85	112	89-92	60	51-53		2.5	9	9	L0.4-L0.63
NX-KG/Φ114	156	100	143	106-114	60	62-66		3	12	18	L1
NX-KG/Φ152	163	108	191	152-159	60	87-91		3	12	15	L1.6-L6.3
NX-KG/Φ219	240	158	247	216-224	60	120-124		3	12	28	L10-L40
NX-KG/Φ299	350	260	325	299	40	172	370	3	16	20	L20-L100
NX-KG/Φ229	238	155	265	223-234	60	120-127		4	12	32	

订货说明 /Ordering Note

1.订货时须写明型号代号全称，如：蓄能器公称容积25L，直径为Φ299卡箍：NX-KG/Φ299。(已包括橡胶垫)
2.若对卡箍还有特殊要求时，请向本企业商洽。
3.本企业保留设计更改权，对修改不另行通知。

1.Fill type code is needed before booking,as:Bracket of Nom.V25L;DΦ299HOOP;NX-KG/Φ299(rubber gasket include) .
2.Contact us if special requirement is needed.
3.Design change rights is retained by our company and revise is effective without further notioce.